

## LANXESS facilitates collaborative development for the rubber industry in Chennai



Chennai: LANXESS, the global specialty chemicals company, has taken a novel initiative towards innovation in partnership with its leading distributor for rubber businesses, Ram Charan Co Pvt Ltd, which is a strategic business partner to leading manufacturers in rubber, plastics and, inks and coatings industries. The assets of the erstwhile LANXESS Rubber Chemicals Technical Centre in Thane have now been relocated to the Tech Centre of Ram Charan at Chennai. The Centre, which will serve rubber customers across the country, will also be staffed by Ram Charan. This Centre was opened 02.05.2014 in the presence of Mr. B. Jayamani, Secretary – Indian Rubber Institute, who was the Chief Guest, Mr. Divyesh Palicha, Chairman, Ram Charan and Mr. Vinay Jayade, Head of Business Unit Rubber Chemicals, LANXESS India.

This Tech Centre, which houses all rubber testing equipment provided by LANXESS, will undertake testing, formulation development and application

development to address specific customer problems in the rubber industry. This is well aligned with LANXESS' philosophy of innovation through collaborative research in order to address customer specific needs and develop new product applications.

The fact that the Centre is in Chennai is also of strategic importance as the state of Tamil Nadu is the new hub for automotive and tire industries, which are the key customers of the rubber industry. From this Centre, LANXESS and Ram Charan will be able to especially serve the fast growing rubber markets in South India and Sri Lanka.

Besides the Rubber chemicals business of LANXESS, Ram Charan is also the distributor for High Performance Elastomers, Keltan Elastomers and products from Rhein Chemie. This mutual agreement between LANXESS and Ram Charan will therefore benefit the customers of these businesses as well.



The AVAILABLE EQUIPMENTS are as follows

**RUBBER COMPOUNDING AND MIXING LAB**

1. Two friction ratio 200mm×450mm laboratory mixing mill equipped with variable speed gears, with heating and cooling arrangement.
2. 2 litre variable speed internal mixer (Banbury)
3. 25mm variable speed extruder (garvey die extruder)
4. 400 × 400mm 150 tones hydraulic press
5. 450 × 450mm electrical heated press.
3. Hot Air oven
5. Multi cell ovens
5. Compression Set Apparatus.

**RUBBER PHYSICAL TESTING LAB**

The testing section of the laboratory is also equipped with the following special apparatus:

Latest system to follow the processing and curing characteristics:

- a) Mooney Viscometers (Monsanto)
- b) Oscillating Disc Rheometer (Toyoseiki)
- c) Tensometer (Tensile Tester)
- d) IRHD Hardness & Shore A Hardness tester
- e) DIN Abrader (for index and for loss)
- f) Densimeter
- g) Rebound Tester
- h) Digital Thickness Gauge
- i) Air Permeability Tester
- j) Oxygen Bomb tester
- k) Die punching Hand Press
- l) Compression Set Apparatus (Method-B)
- m) Drilling M/C for punching buttons for Abrasion testing
- n) Thickness Gauge (upto 0.01mm accuracy)

**RUBBER DYANAMIC TESTING LAB**

- a) Goodrich Compression Flexometer
- b) 2 Monsanto Fatigue to failure tester
- c) Ross flex tester
- d) De-mattia flex tester

**LATEX SECTION:**
**LATEX APPLICATION LABORATORY**

- a) pH meter
- b) 2 Brookfield Viscometers (Digital & Manual)
- c) Dyno mill
- d) Ball mill
- e) 2 Fritsch mills (Double pot & single pot)

- f) Particle size Analyzer
- g) 3 Magnetic stirrers
- h) Foam Beater
- i) Latex maturation apparatus with (controlled temperature water circulation.
- j) Infrared Lamp
- k) 3 Hot Air Ovens
- l) Centrifugal Ball Mill
- m) Small Water Bath
- n) 1 Mettler Balance (upto 0.0001gm accuracy)
- o) 3 Mettler Balance (upto 0.01gm accuracy)

Sr No.	Instruments	Use
1	Oscillating Disc Rheometer	Cure Characteristics
2	Mooney Viscometer	Viscosity of rubber, Mooney Scorch
3	Tensile Tester	Tensile strength of rubber, Tear Strength
4	DIN Abrader	Abrasion resistance, Abrasion loss
5	Compression Flexometer	Heat build up
6	Multicell Oven, Hot Air Oven	Hot air ageing
8	Oxygen Bomb Tester	Ageing in O <sub>2</sub> /N <sub>2</sub> Atmosphere
9	Gas Permeability Tester	Air permeability properties
10	Rebound Resilience Tester	Dynamic Property

**LATEX SECTION**

- 1 Tests performed on Latex
  - Total Solid Content of latex
  - Dry Rubber Content of latex
  - Total Alkalinity Content of latex
  - pH of Latex
  - Mechanical Stability Test of latex
  - Viscosity of Latex
  - Wetting Test of powders
2. Preparation of Dispersions and Emulsions
  - ZnO Dispersion
  - SKF Dispersion
  - ZMBT Dispersion
  - Sulphur Dispersion